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LETTER TO THE EDITOR

Reply—Histologic Chorioamnionitis and Neonatal Outcome in Preterm Infants

To the Editor,

Some readers were confused by about the data in Table 2 in our article, and they wanted us to explain the discrepancy that the incidence of respiratory distress syndrome (RDS) and the use of mechanical ventilation was significantly lower in infants in the MIR+FIR− group or MIR+FIR+ group than in infants in the MIR-FIR- group, but the incidence of pulmonary surfactant (PS) administration was similar among the three groups. In our preterm newborns, the PS administration was used not only for RDS treatment, but also for prophylactic therapy. Therefore, some cases in each group that received PS administration were not RDS patients. We think that this is the main reason for the discrepancy.

It is widely accepted that bronchopulmonary dysplasia (BPD) is a consequence of lung inflammation that is caused by intrauterine infection and/or postnatal inflammation. A meta-analysis of clinical studies showed that chorioamnionitis was significantly associated with BPD.[1] However, we were unable to confirm the association between placental inflammation and bronchopulmonary dysplasia (BPD) from our clinical data analysis. Low gestational age is a very important risk factor for BPD, and the incidence of BPD significantly decreases with the increase in gestational age. We therefore suggested that one of possible explanation is that the patient population of our study was relatively older, although other variable factors cannot be excluded.

The relationship between intrauterine inflammation and BPD is very complicated. Postnatal inflammation also plays an important role. A clinical study has shown that prolonged mechanical ventilation or postnatal infection interacts with antenatal infection to further increase the risk of chronic lung disease in preterm neonates.[2] PS components can decrease harmful lung inflammatory responses, and animal-derived PS extract is associated with a decreased risk of BPD.[3] Therefore, PS is widely used as a prophylactic therapy for our preterm newborns, which may also mitigate the effect of placental inflammation on the development of BPD. More studies are needed to clarify the relationship between placental inflammations, postnatal inflammation, medical intervention, and BPD.

Conflicts of Interest

The authors have no conflicts of interest relevant to this article.

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